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## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/666,837B

DATE: 02/06/2002

TIME: 11:49:19

Input Set : A:\206a-rs2.txt

Output Set: N:\CRF3\02062002\I666837B.raw

3 <110> APPLICANT: Cornell-Bell, Ann H.  
 4       Pemberton, Karen E.  
 5       Temple Jr., Davis L.  
 6       Layer, Richard T.  
 7       McCabe, R. Tyler  
 8       Jones, Robert M.  
 9       Cognetix, Inc.

11 <120> TITLE OF INVENTION: Uses of Kappa-Conotoxin PVIIA  
 13 <130> FILE REFERENCE: Kappa-PVIIA  
 15 <140> CURRENT APPLICATION NUMBER: US/09/666,837B  
 16 <141> CURRENT FILING DATE: 2000-09-21  
 18 <150> PRIOR APPLICATION NUMBER: US 60/219,438  
 19 <151> PRIOR FILING DATE: 2000-07-20  
 21 <150> PRIOR APPLICATION NUMBER: US 60/155,135  
 22 <151> PRIOR FILING DATE: 1999-09-22  
 24 <160> NUMBER OF SEQ ID NOS: 25  
 26 <170> SOFTWARE: PatentIn Ver. 2.0  
 28 <210> SEQ ID NO: 1  
 29 <211> LENGTH: 27  
 30 <212> TYPE: PRT  
 31 <213> ORGANISM: Conus purpurascens  
 33 <220> FEATURE:  
 34 <221> NAME/KEY: PEPTIDE  
 35 <222> LOCATION: (1)..(27)  
 36 <223> OTHER INFORMATION: Xaa at residue 2, 7, 18, 19, 22 and 25 may be Arg,  
 37       homoarginine, ornithine, Lys, N-methyl-Lys,  
 38       N,N-dimethyl-Lys, N,N,N-trimethyl-Lys, any  
 39       synthetic basic amino acid, His or halo-His; Xaa at  
 41 <220> FEATURE:  
 42 <221> NAME/KEY: PEPTIDE  
 43 <222> LOCATION: (1)..(27)  
 44 <223> OTHER INFORMATION: residue 4 may be Pro or Hyp; Xaa at residue 9 and  
 45       23 may be Phe,Tyr, meta-Tyr, ortho-Tyr, nor-Tyr,  
 46       mono-halo-Tyr, di-halo-Tyr, O-sulpho-Tyr,  
 47       O-phospho-Tyr, nitro-Tyr, Trp (D or L), neo-Trp,  
 49 <220> FEATURE:  
 50 <221> NAME/KEY: PEPTIDE  
 51 <222> LOCATION: (1)..(27)  
 52 <223> OTHER INFORMATION: halo-Trp (D or L) or any synthetic aromatic amino  
 53       acid; Xaa at residue 11 is His or halo-His  
 55 <400> SEQUENCE: 1  
 56 Cys Xaa Ile Xaa Asn Gln Xaa Cys Xaa Gln Xaa Leu Asp Asp Cys Cys  
 57       1                   5                   10                   15

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RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/666,837B

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Input Set : A:\206a-rs2.txt  
Output Set: N:\CRF3\02062002\I666837B.raw

W 59 Ser Xaa Xaa Cys Asn Xaa Xaa Asn Xaa Cys Val  
60 20 25  
63 <210> SEQ ID NO: 2  
64 <211> LENGTH: 27  
65 <212> TYPE: PRT  
66 <213> ORGANISM: Conus purpurascens  
68 <220> FEATURE:  
69 <221> NAME/KEY: PEPTIDE  
70 <222> LOCATION: (1)..(27)  
71 <223> OTHER INFORMATION: Xaa is Hyp  
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75 1 5 10 15  
77 Ser Ala Lys Cys Asn Arg Phe Asn Lys Cys Val  
78 20 25  
81 <210> SEQ ID NO: 3  
82 <211> LENGTH: 27  
83 <212> TYPE: PRT  
84 <213> ORGANISM: Conus purpurascens  
86 <220> FEATURE:  
87 <221> NAME/KEY: PEPTIDE  
88 <222> LOCATION: (1)..(27)  
89 <223> OTHER INFORMATION: Xaa is Hyp  
91 <400> SEQUENCE: 3  
W -> 92 Cys Arg Ile Xaa Asn Gln Lys Cys Phe Gln His Leu Asp Asp Cys Cys  
93 1 5 10 15  
95 Ser Arg Lys Cys Asn Ala Phe Asn Lys Cys Val  
96 20 25  
99 <210> SEQ ID NO: 4  
100 <211> LENGTH: 27  
101 <212> TYPE: PRT  
102 <213> ORGANISM: Conus purpurascens  
104 <220> FEATURE:  
105 <221> NAME/KEY: PEPTIDE  
106 <222> LOCATION: (1)..(27)  
107 <223> OTHER INFORMATION: Xaa is Hyp  
109 <400> SEQUENCE: 4  
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111 1 5 10 15  
113 Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
114 20 25  
117 <210> SEQ ID NO: 5  
118 <211> LENGTH: 27  
119 <212> TYPE: PRT  
120 <213> ORGANISM: Conus purpurascens  
122 <220> FEATURE:  
123 <221> NAME/KEY: PEPTIDE  
124 <222> LOCATION: (1)..(27)  
125 <223> OTHER INFORMATION: Xaa is Hyp

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/666,837B

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Input Set : A:\206a-rs2.txt  
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127 <400> SEQUENCE: 5  
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129 1 5 10 15  
131 Ser Arg Ala Cys Asn Arg Phe Asn Lys Cys Val  
132 20 25  
135 <210> SEQ ID NO: 6  
136 <211> LENGTH: 27  
137 <212> TYPE: PRT  
138 <213> ORGANISM: Conus purpurascens  
140 <220> FEATURE:  
141 <221> NAME/KEY: PEPTIDE  
142 <222> LOCATION: (1)..(27)  
143 <223> OTHER INFORMATION: Xaa is Hyp  
145 <400> SEQUENCE: 6  
W-> 146 Cys Ala Ile Xaa Asn Gln Lys Cys Phe Gln His Leu Asp Asp Cys Cys  
147 1 5 10 15  
149 Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
150 20 25  
153 <210> SEQ ID NO: 7  
154 <211> LENGTH: 27  
155 <212> TYPE: PRT  
156 <213> ORGANISM: Conus purpurascens  
158 <220> FEATURE:  
159 <221> NAME/KEY: PEPTIDE  
160 <222> LOCATION: (1)..(27)  
161 <223> OTHER INFORMATION: Xaa is Hyp  
163 <400> SEQUENCE: 7  
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165 1 5 10 15  
167 Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
168 20 25  
171 <210> SEQ ID NO: 8  
172 <211> LENGTH: 27  
173 <212> TYPE: PRT  
174 <213> ORGANISM: Conus purpurascens  
176 <220> FEATURE:  
177 <221> NAME/KEY: PEPTIDE  
178 <222> LOCATION: (1)..(27)  
179 <223> OTHER INFORMATION: Xaa is Hyp  
181 <400> SEQUENCE: 8  
W-> 182 Cys Arg Ile Xaa Asn Gln Lys Cys Phe Gln His Leu Asp Asp Cys Cys  
183 1 5 10 15  
185 Ser Arg Lys Cys Asn Arg Phe Asn Ala Cys Val  
186 20 25  
189 <210> SEQ ID NO: 9  
190 <211> LENGTH: 27  
191 <212> TYPE: PRT  
192 <213> ORGANISM: Conus purpurascens  
194 <220> FEATURE:

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Input Set : A:\206a-rs2.txt  
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195 <221> NAME/KEY: PEPTIDE  
 196 <222> LOCATION: (1)..(27)  
 197 <223> OTHER INFORMATION: Xaa is Hyp  
 199 <400> SEQUENCE: 9  
 WOK> 200 Cys Lys Ile Xaa Asn Gln Lys Cys Phe Gln His Leu Asp Asp Cys Cys  
 201 1 5 10 15  
 203 Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
 204 20 25  
 207 <210> SEQ ID NO: 10  
 208 <211> LENGTH: 27  
 209 <212> TYPE: PRT  
 210 <213> ORGANISM: Conus purpurascens  
 212 <220> FEATURE:  
 213 <221> NAME/KEY: PEPTIDE  
 214 <222> LOCATION: (1)..(27)  
 215 <223> OTHER INFORMATION: Xaa is Hyp  
 217 <400> SEQUENCE: 10  
 WOK> 218 Cys Arg Ile Xaa Asn Gln Ala Cys Phe Gln His Leu Asp Asp Cys Cys  
 219 1 5 10 15  
 221 Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
 222 20 25  
 225 <210> SEQ ID NO: 11  
 226 <211> LENGTH: 27  
 227 <212> TYPE: PRT  
 228 <213> ORGANISM: Conus purpurascens  
 230 <220> FEATURE:  
 231 <221> NAME/KEY: PEPTIDE  
 232 <222> LOCATION: (1)..(27)  
 233 <223> OTHER INFORMATION: Xaa is Hyp  
 235 <400> SEQUENCE: 11  
 WOK> 236 Cys Arg Ile Xaa Asn Gln Lys Cys Met Gln His Leu Asp Asp Cys Cys  
 237 1 5 10 15  
 239 Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
 240 20 25  
 242 <210> SEQ ID NO: 12  
 243 <211> LENGTH: 27  
 244 <212> TYPE: PRT  
 245 <213> ORGANISM: Conus purpurascens  
 247 <220> FEATURE:  
 248 <221> NAME/KEY: PEPTIDE  
 249 <222> LOCATION: (1)..(27)  
 250 <223> OTHER INFORMATION: Xaa is Hyp  
 252 <400> SEQUENCE: 12  
 WOK> 253 Cys Arg Ile Xaa Asn Gln Lys Cys Tyr Gln His Leu Asp Asp Cys Cys  
 254 1 5 10 15  
 256 Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
 257 20 25  
 259 <210> SEQ ID NO: 13  
 260 <211> LENGTH: 27

RAW SEQUENCE LISTING  
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Input Set : A:\206a-rs2.txt  
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261 <212> TYPE: PRT  
 262 <213> ORGANISM: Conus purpurascens  
 264 <220> FEATURE:  
 265 <221> NAME/KEY: PEPTIDE  
 266 <222> LOCATION: (1)..(27)  
 267 <223> OTHER INFORMATION: Xaa is Hyp  
 269 <400> SEQUENCE: 13  
 W-> 270 Cys Gln Ile Xaa Asn Gln Lys Cys Phe Gln His Leu Asp Asp Cys Cys  
 271 1 5 10 15  
 273 Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
 274 20 25  
 277 <210> SEQ ID NO: 14  
 278 <211> LENGTH: 27  
 279 <212> TYPE: PRT  
 280 <213> ORGANISM: Conus purpurascens  
 282 <220> FEATURE:  
 283 <221> NAME/KEY: PEPTIDE  
 284 <222> LOCATION: (1)..(27)  
 285 <223> OTHER INFORMATION: Xaa is Hyp  
 287 <400> SEQUENCE: 14  
 W-> 288 Cys Arg Ile Xaa Asn Gln Lys Cys Phe Gln Ala Leu Asp Asp Cys Cys  
 289 1 5 10 15  
 291 Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
 292 20 25  
 295 <210> SEQ ID NO: 15  
 296 <211> LENGTH: 27  
 297 <212> TYPE: PRT  
 298 <213> ORGANISM: Conus purpurascens  
 300 <220> FEATURE:  
 301 <221> NAME/KEY: PEPTIDE  
 302 <222> LOCATION: (1)..(27)  
 303 <223> OTHER INFORMATION: Xaa is Hyp  
 305 <400> SEQUENCE: 15  
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 309 Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
 310 20 25  
 313 <210> SEQ ID NO: 16  
 314 <211> LENGTH: 27  
 315 <212> TYPE: PRT  
 316 <213> ORGANISM: Conus purpurascens  
 318 <220> FEATURE:  
 319 <221> NAME/KEY: PEPTIDE  
 320 <222> LOCATION: (1)..(27)  
 321 <223> OTHER INFORMATION: Xaa is Hyp  
 323 <400> SEQUENCE: 16  
 W-> 324 Cys Arg Ile Xaa Asn Ala Lys Cys Phe Gln His Leu Asp Asp Cys Cys  
 325 1 5 10 15  
 327 Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val

Use of n and/or Xaa has been detected in the Sequence Listing.  
 Review the Sequence Listing to insure a corresponding  
 explanation is presented in the <220> to <223> fields of  
 each sequence using n or Xaa.

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/09/666,837B

DATE: 02/06/2002

TIME: 11:49:21

Input Set : A:\206a-rs2.txt

Output Set: N:\CRF3\02062002\I666837B.raw

L:15 M:270 C: Current Application Number differs, Replaced Application Number  
L:16 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:56 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:59 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:74 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:92 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:110 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:128 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5  
L:146 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:164 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:182 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:200 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9  
L:218 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10  
L:236 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11  
L:253 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12  
L:270 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13  
L:288 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14  
L:306 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15  
L:324 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16  
L:342 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17  
L:360 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18  
L:378 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19  
L:396 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20  
L:414 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21  
L:432 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22  
L:450 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23  
L:480 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25